Globallsation of prevention education: a golden lecture. Lancet

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could underline the severity of the clinical phenotype, but systematic analyses need to be undertaken before any firm conclusions can be drawn.

Why mutations in *LMNA* result in such a wide range of apparently distinct phenotypes is unknown. However, the identification of overlapping lamin-associated disorders indicates that they represent a functional continuum of related disorders rather than separate diseases.

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Authors' reply

Sir—The University of Washington International Registry of Werner Syndrome was set up in 1987 to collect information on patients with Werner's syndrome from all over the world based on a set of clinical criteria, providing definite, probable, or possible diagnoses. The database was established before the *WRN* and *LMNA* genes were identified; only those cases classed as definite or probable were used for the positional cloning experiments that lead to the discovery of the *WRN* locus. Clinicians worldwide subsequently submitted cases with overlapping progeroid features, a minor subset of whom had the *LMNA* mutations described in our report. In accordance with the trend to categorise disorders on the basis of the responsible genes instead of clinical symptoms or pathological findings, the term laminopathy would be an appropriate designation for the growing set of disorders caused by *LMNA* mutations, and might

Patient with *LMNA* R140L mutation
Note thinning and greying of hair, pinched nose, and lack of subcutaneous fat on face without any mandibular hypoplasia.

eventually replace such nomenclatures as "muscular dystrophy with lipodystrophy". Mandibuloacral dysplasia is usually listed in the differential diagnoses of Hutchinson-Gilford progeria (most commonly caused by G608G mutation, as pointed out by Gisele Bonne and Nicolas Levy); we now know how these two disorders are related.

Bonne and Levy, and C Vigouroux and colleagues would like us to compare phenotypes of our patients with those of two patients published since submission of our report. One of them, reported by Caux and colleagues, is a 27-year-old man with childhood-onset generalised lipodystrophy who had the same R133L heterozygous *LMNA* mutation as that reported in two of our patients. All three patients had scleroderma-like skin, early onset diabetes mellitus, and greying or thinning of hair; all signs suggestive of Werner's syndrome. Our patients might be too young to conclude that cataracts are or are not associated with this mutation. One of the female patients reported by us had short stature and hypogonadism, whereas the patient reported by Caux and colleagues had normal height and normal sexual maturation. The extent to which our patients with the R133L mutation have generalised or partial lipodystrophy, hepatic steatosis, or abnormal lipid profiles remains to be ascertained.

The other published case with the L140P mutation (not R140P as stated by Bonne and Levy) describes a 13-year-old boy with EDMD without progeroid features. Our 34-year-old patient with a heterozygous L140R mutation presented with various progeroid features, including bilateral ocular cataracts (figure). We agree with Bonne and Levy that specific aminoacid substitutions at positions 140 and 527 of lamin A/C can result in different phenotypes.

The R527P mutation reported in EDMD and cardiomyopathy was heterozygous, whereas the R527H mutation seen in patients with mandibuloacral dysplasia was homozygous.[1] Whether individuals with the heterozygous R527C mutations have any phenotype remains unclear, since the 28-year-old lady reported by Cao and Hegele with apparently typical Hutchinson-Gilford progeria was a compound heterozygote with R527C and R471C mutations. In fact, the patient had clavicular resorption, multiple fractures, and acro-osteolysis, features more suggestive of mandibuloacral dysplasia than Hutchinson-Gilford progeria.

Much more research is certainly needed to sort out the pathogenetic mechanisms that underlie this fascinating set of disorders.

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Globalisation of prevention education: a golden lecture

Sir—John S Yudkin and colleagues (Sept 6, p 822),[1] argue that teaching of international health to medical students in the UK will help to provide a greater understanding of the global trends of disease. Here, we describe how we gave a single lecture on disease prevention to more than 75% of the countries of the world.

Improvements in hygiene and in our knowledge of how to prevent disease have led to a worldwide gain in life expectancy of 30 years over the 20th century. The way in which preventive medicine is taught has, however, hardly changed. The importance of disease prevention was recognised as early as the 5th Century AD by Hippocrates of Cos. Hippocrates taught that a proper diet is a necessity of health, and that

climate has a profound effect on both mind and body. In Greece, Sept 19 is celebrated as Hippocrates day, and in May, 2003, those involved in the Supercourse Prevention project (http://www.pitt.edu/~super1), funded by the US National Institutes of Health (NIH), suggested that the day be used to spread worldwide the message of disease prevention. As such, on Sept 19, we posted the "Golden Lecture of Prevention" on the internet. The supercourse is an internet library of lectures on prevention, shared for free by 10 000 members from 151 countries in the Global Health Network. The golden lecture was designed to teach preventive approaches to health.

Leading researchers from more than 30 countries, including Russia, Nepal, Cuba, Armenia, and several Islamic states, participated in the creation of the lecture, which is especially important for the developing world, where doctors and researchers are struggling to find cost-effective ways to improve their population's health.

We distributed the golden lecture to doctors, professors, public-health professionals, and instructors by Sept 1, 2003, to be read and taught until and on Hippocrates day. To improve access to the lecture, we made two formats available. Over the next several months, the lecture was translated into 12 languages, including Chinese, Russian, Spanish, Arabic, Indonesian, and Croatian. All of these materials were uploaded to the Supercourse website at http://www.pitt.edu/~super1/lecture/lec10511/index.htm. Overall, the lecture was used in 136 of the 189 UN-recognised countries.

Our aim was to reach educators in as many countries as possible. We believe the time has come to globalise training in health and share our knowledge.

We thank the members of the Global Health Network for their contribution. Please contact FL to obtain a copy of the Golden lecture of prevention and a free supercourse with 1038 lectures.

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Retinal detachment

Sir—The public and the medical profession—especially ophthalmologists—should be aware that reports by patients of "floaters", "seeing spots", or "triangles" in their field of vision are meaningless until their cause can been ascertained. Precious time was lost for the patient described by Jennifer Ng and colleagues (Aug 23, p 639)[1] and many unnecessary tests were done; cycloplegic fundoscopy is all that was needed.

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Detection of a community infection outbreak with virtual surveillance

Sir—The Joint Commission on Accreditation of Healthcare Organizations for US hospitals (JCAHO) is continuing to strengthen organisation-wide infection control practice in inpatient and outpatient settings.[1] J P Burke has suggested that a potential approach for expanding surveillance is the use of new computer technologies capable of detecting small patterns of change in vast amounts of computer data available in clinical microbiology laboratory information systems.[2] One of the innovations mentioned was the use of data mining as a means for automated, enhanced, organisation-wide detection of infection outbreaks.[3]

Evanston Northwestern Healthcare is a three-hospital academic healthcare system with nearly 800 inpatient beds. In 2002, the 1700 physicians on the medical staff cared for more than 43 000 inpatients. These physicians also saw 91 000 patients in the emergency departments and experienced over 390 000 outpatient visits. About 53% of the specimens processed by the clinical microbiology laboratory at our institution result from these outpatient visits, providing potential surveillance opportunities in the community as well as the hospital. In October, 2002, we began to use a new surveillance service created by MedMined (Birmingham, AL, USA) which uses artificial intelligence, statistics, and database technology ("data mining") to capture large amounts of existing microbiology data. These data are analysed for meaningful patterns of organisms and patients without manual entry or predefined search criteria. In July, 2003, this service detected the appearance of an unusual *Salmonella* species from submitted stools in one of our hospital emergency departments. Since four of the seven patients presented in a short period of time (<24 h), observant practitioners caring for these patients also reported the event. The computer system automatically detected this event and reported it as an alert needing investigation.

This small cluster of cases was found to represent a portion of patients made ill from contaminated food at a local restaurant. *Salmonella javiana* is an unusual, but recognised, cause of foodborne disease,[4] and its detection in outpatients by an automated system monitoring a clinical microbiology database is a clear example of what we should come to expect from emerging technology. Such systems can uncover small changes in complex patterns and provide infection-control professionals with opportunities to intervene before limited clusters of preventable infections become expansive outbreaks. Dutch investigators have described their introduction of a nationally comprehensive, albeit somewhat less technologically sophisticated, hypothesis-based screening of microbiology laboratory data for outbreak detection, and plan to cover 35% of their population by 2006.[5] These kinds of developments provide a vision for 21st century innovations that can expand our capacity to detect and treat clusters of infectious diseases, thus limiting their spread and improving patients' safety.

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